AMENDMENTS TO THE CLAIMS

1-37. (**Canceled**)

38. (**New**) A method of treating cancer in a subject, comprising topically administering to a subject in need thereof a composition comprising a therapeutically effective amount of between about 0.01% and 30% w/w of Coenzyme Q10, thereby treating cancer in the subject.

39. (**New**) A method of treating cancer in a subject, comprising topically administering to a subject in need thereof a composition comprising an effective amount of between about 1.5 and 4.0 mg of Coenzyme Q10 per kg of body weight of the subject, thereby treating cancer in the subject.

40. (**New**) The method of claim 38 or 39, wherein the subject is human.

41. (**New**) The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is formulated as a topical cream.

42. (**New**) The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is liposomal.

43. (**New**) The method of claim 38, wherein the composition comprises about 1% to about 25% w/w of Coenzyme Q10.

44. (**New**) The method of claim 38, wherein the composition comprises about 1% to about 20% w/w of Coenzyme Q10.

45. (**New**) The method of claim 38 or 39, wherein the cancer is selected from the group consisting of a melanoma, carcinoma, sarcoma, leukemia and lymphoma.

46. (**New**) The method of claim 38 or 39, wherein the cancer is a melanoma.

47. **(New)** The method of claim 38 or 39, wherein the cancer is a carcinoma.

48. **(New)** The method of claim 47, wherein the carcinoma is squamous cell carcinoma.

49. **(New)** The method of claim 47, wherein the carcinoma is breast adenocarcinoma.

50. **(New)** The method of claim 47, wherein the carcinoma is hepatocellular carcinoma.

51. **(New)** The method of claim 47, wherein the carcinoma is prostatic adenocarcinoma.

52. **(New)** The method of claim 38 or 39, wherein the cancer is a sarcoma.

53. **(New)** The method of claim 52, wherein the sarcoma is an osteosarcoma.

54. **(New)** The method of claim 38 or 39, wherein the cancer is selected from the group consisting of skin cancer, breast cancer, prostate cancer, liver cancer and bone cancer.

55. **(New)** The method of claim 54, wherein the cancer is skin cancer.

56. **(New)** The method of claim 54, wherein the cancer is breast cancer.

57. **(New)** The method of claim 54, wherein the cancer is prostate cancer.

58. **(New)** The method of claim 54, wherein the cancer is liver cancer.

59. **(New)** The method of claim 52, wherein the cancer is bone cancer.

60. **(New)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is administered with an additional anti-cancer agent.

61. (New) The method of claim 60, wherein the additional anti-cancer agent is a chemotherapeutic agent.

62. **(New)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of cyclophosphamide, taxanes, busulfan, methotrexate, daunorubicin, doxorubicin, melphalan and cladribine.

63. **(New)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of vincristine, vinblastine, chlorambucil, tamoxifen, taxol, camptothecin, actinomycin-D, mitomycin C and combretastatin.

64. **(New)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of cisplatin, etoposide, adriamycin, verapamil and podophyllotoxin.

65. **(New)** The method of claim 61, wherein the chemotherapeutic agent is 5-fluorouracil.

66. **(New)** The method of claim 60, wherein the additional agent is an anti-angiogenic agent.

67. **(New)** The method of claim 60, wherein the additional anti-cancer agent is co-administered with the composition comprising Coenzyme Q10 to the subject.

68. **(New)** The method of claim 60, wherein administration of the additional anti-cancer agent precedes administration of the composition comprising Coenzyme Q10 to the subject.

69. **(New)** The method of claim 60, wherein administration of the additional anti-cancer agent follows administration of the composition comprising Coenzyme Q10 to the subject.

70. **(New)** The method of claim 38 or 39, wherein treatment results in inhibition of tumor cell growth in the subject.

71. **(New)** The method of claim 38 or 39, wherein treatment results in an increase in apoptosis of tumor cells in the subject.

72. **(New)** The method of claim 38 or 39, wherein treatment results in inhibition of tumor-mediated angiogenesis in the subject.

73. **(New)** A method for inhibiting tumor cell growth in a subject, the method comprising topically administering to a subject having a tumor a pharmaceutical composition comprising Coenzyme Q10, thereby inhibiting tumor cell growth in the subject.

74. **(New)** The method of claim 73, wherein the subject is human.

75. **(New)** The method of claim 73, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.

76. **(New)** The method of claim 73, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.

77. **(New)** The method of claim 73, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.

78. **(New)** The method of claim 73, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

79. **(New)** The method of claim 73, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.

80. **(New)** A method of inducing apoptosis in a tumor cell in a subject, the method comprising topically administering to a subject having a tumor a pharmaceutical composition comprising Coenzyme Q10, thereby inducing apoptosis in a tumor cell in the subject.

81. **(New)** The method of claim 80, wherein the subject is human.

82. **(New)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in at least about 30% of tumor cells.

83. **(New)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 50% of tumor cells.

84. **(New)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 60% of tumor cells.

85. **(New)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 75% of tumor cells.

86. **(New)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 90% of tumor cells.

87. **(New)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 99.9% of tumor cells.

88. **(New)** The method of claim 80, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.

89. **(New)** The method of claim 80, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.

90. **(New)** The method of claim 80, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.

91. **(New)** The method of claim 80, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

92. **(New)** The method of claim 80, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.

93. **(New)** A method of inhibiting tumor mediated angiogenesis in a subject, the method comprising topically administering to a subject having a tumor a pharmaceutical composition comprising Coenzyme Q10, thereby inhibiting tumor mediated angiogenesis in a subject.

94. **(New)** The method of claim 93, wherein the subject is human.

95. **(New)** The method of claim 93, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.

96. **(New)** The method of claim 93, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.

97. **(New)** The method of claim 93, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.

98. **(New)** The method of claim 93, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

99. **(New)** The method of claim 93, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.